FW Babcock Wilcox Comments on Notice of Inquiry dated July 1 2005

From: Defusco, John P
Sent: Thursday, August 18, 2005 9:08 PM
To: Bernstein, Howard (ENE); 'Gudell, Jan (ENE)'
Subject: Babcock & Wilcox Comments on Notice of Inquiry dated July 1, 2005

To whom it may concern,

The Babcock & Wilcox Company has been in the boiler and environmental equipment business for nearly 140 years. We are a full scope supplier to the biomass market segment, offering a complete line of products, which include Fluidized Bed Boilers, Stoker Boilers, Over Fire Air Systems, and SCR systems, and have supplied SNCR via sublet vendors as part of larger projects. I think it is a very important distinction to note that since we offer all these products, we not only have a wealth of design and operating experience, but our comments should be viewed as unbiased toward any particular technology.

We do not believe it is our place to comment on specific emission limits, but believe it is important that qualification guidelines provide clarity and certainty, and that the limits outlined be achievable with proven, commercially available technology.

That being said, it is noteworthy that of the reference boilers used to develop the limits, Whitefield and Stratton-Boralex are the only two that have actually demonstrated the proposed NOx limit. To our knowledge, none of the referenced units have yet demonstrated the capability to meet the entire list of emission limits simultaneously. This raises the question as to what limits are appropriate based upon the current knowledge base.

In regard to some specific technologies, we offer the following comments:

B&W is a leading supplier of SCR systems in the utility market, but like most SCR system suppliers, we buy catalyst from any number of qualified catalyst suppliers. While there is no doubt that the key chemical reactions which take place in an SCR system will occur with flue gas generated from a biomass-fired unit, the real issue becomes a question of how long the catalyst will live. Many catalyst suppliers have been reluctant to provide long term guarantees on catalyst life on a biomass-fired unit, even on the clean side of the precipitator. We see the issue of catalyst longevity as an unknown at this point, until there is more run time on existing SCR systems firing biomass. SCR system suppliers will typically limit the term of their guarantees to whatever the catalyst supplier offers, therefore in the near term, catalyst longevity will be a technology risk borne by operating companies who choose to install these systems to comply with the limits. This whole issue becomes part of a philosophical debate as to when a technology truly become commercially proven, because economics (cost) of a technology should be factored into the equation.

A full scope boiler vendor such as B&W will typically select the boiler technology

for a given project based upon the specified fuel, which is normally pre-determined by the owner. Biomass fuels usually have a significant variation in the range of moisture quantity, often due to seasonal variations. Under the varying moisture conditions associated with typical biomass fuels, our experience indicates that Fluid Bed Technology will usually provide lower “uncontrolled” NOx, CO, and VOC emissions, when compared to a stoker unit.

In regard to Over Fire Air Technology, B&W has several biomass fired stoker units in service in the New England area that are approximately 20 years old, and were designed to run sub-stoichiometric on the grate, with air splits being on the order of 50% Overfire / 50% Undergrate.

Respectfully submitted

John P. DeFusco

District Manager – New England Area

The Babcock & Wilcox Company